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JOHN R. D'ANTONIO, JR.
SECRETARY

CERTIFIED MAIL NO. 7000 0520 0021 3769 9315
RETURN RECEIPT REQUESTED

Permittee:

Los Alamos National Laboratory
Meteorology and Air Quality Group
P.O. Box 1663, MS J978
Los Alamos, NM 87545

NSR Air Quality Permit No. 2195-F
Los Alamos National Laboratory
Technical Area 33
AIRS No. 35-028-0001

Company Official:

Scott Miller
Deputy Group Leader, Meteorology and Air
Quality Group

Richard L. Lody

for Sandra Ely
Bureau Chief
Air Quality Bureau

OCT 10 2002

Date of Issuance

Air Quality Permit No. 2195-F is issued by the Air Quality Bureau of the New Mexico Environment Department (Department) to Los Alamos National Laboratory pursuant to the Air Quality Control Act (Act) and regulations adopted pursuant to the Act including Title 20, New Mexico Administrative Code (NMAC), Chapter 2, Part 72, (20 NMAC 2.72), Construction Permits, Subpart II and is enforceable pursuant to the Act and the air quality control regulations applicable to this source.

This permit authorizes the construction and operation of a diesel fired 1500 kW generator at Technical Area 33 (TA-33). The function of the TA-33 facility is to perform experimental research activities. This facility is located in Township 19N, Range 6E, Section 22, approximately 10 miles southwest of White Rock, New Mexico in Los Alamos County.

The Department has reviewed the permit application for the proposed construction and has determined that the provisions of the Act and ambient air quality standards will be met. Conditions have been imposed in this permit to assure continued compliance. 20 NMAC 2.72, Section 210.D,

states that any term or condition imposed by the Department on a permit is enforceable to the same extent as a regulation of the Environmental Improvement Board.

TOTAL EMISSIONS

The total potential emissions from this facility, excluding exempted activities, are shown in the following table. Emission limitations for individual units are shown in Condition 2.

Total Potential Criteria Pollutant Emissions from Entire Facility (for information only, not an enforceable condition):

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	18.1
Carbon Monoxide (CO)	15.2
Volatile Organic Compounds (VOC)	0.3
Sulfur Dioxide (SO2)	2.5
Particulate (TSP)	0.6
Particulate (PM10)	0.6

As per 20.2.75 NMAC, the Department will assess an annual enforcement/compliance fee as specified in Section 110. At time of permit issuance this fee is \$220. This fee does not apply to sources which are assessed an annual fee in accordance with 20.2.71NMAC. The AQB will invoice the permittee for the amount.

Pursuant to 20 NMAC 2.72, and the specific regulatory citations in parenthesis, the facility is subject to the following conditions.

SPECIFIC CONDITIONS

1. **Construction / Modification / Revision and Operation**
(20 NMAC 2.72, Section 210.A)

- a) The plant shall be modified and operated in accordance with all representations in the permit application dated June 13, 2002 and received June 25, 2002, and the additional submittals received July 17, 2002, unless modified by conditions of this permit.

The Department has relied on air quality modeling to issue this permit. Any change in the parameters used for this modeling may require a permit modification.

- b) The equipment regulated by this permit consists of:

Table 1.1: Regulated Equipment List

Unit No.	Unit Type	Manufacturer	Model No./ Serial No.	Year of Manuf.	Capacity Nameplate/Site	Type of Control Equipment
TA-33-G-1	Diesel Fired Generator	Kohler	1600 ROZD/ L862063	6/1/96	1600 kw/ 1500 kw	None

- c) The permittee shall install a meter capable of tracking kilowatt-hours to the generator. The generator is limited to 12,000 kW-hr/day and to 1,350,000 kW-hr/year.
- d) The generator is also limited to the following operating scenario: eight hours of operation at full capacity (1500 kW) between the hours of 7:00 A.M. and 5:00 P.M.
- e) This facility is subject to all applicable requirements including, but not limited to, the following regulations:

Table 1.2: applicable requirements

Citation	Title
40 CFR Part 60, Subpart A	General Provisions
20 NMAC 2.3	Ambient Air Quality Standards
20 NMAC 2.7	Excess Emissions During Malfunction
20 NMAC 2.61	Smoke and Visible Emissions
20 NMAC 2.70	Operating Permits
20 NMAC 2.71	Operating Permit Fees
20 NMAC 2.72	Construction Permits
20 NMAC 2.73	NOI & Emissions Inventory Requirements
20 NMAC 2.75	Construction Permit Fees

2. Emission Limits (20 NMAC 2.72, Sections 210.A and 210.B.1.b)

Table 2.1: Allowable Emissions

Unit No.	TSP		PM10		NOx		CO		VOC		SOx	
	(pph)	(tpy)	(pph)	(tpy)	(pph)	(tpy)	(pph)	(tpy)	(pph)	(tpy)	(pph)	(tpy)
TA-33-G-1	1.4	0.6	1.4	0.6	40.3	18.1	33.7	15.2	0.7	0.3	5.5	2.5

3. Monitor Requirements
(20 NMAC 2.72, Section 210.B.4, 20 NMAC 2.72)

- a) No Specific Conditions

4. Recordkeeping
(20 NMAC 2.72, Sections 210.B.4, and 210.D)
 - a) The permittee shall record the kilowatt-hours produced by Unit TA-33-G-1 on an hourly basis and on a rolling 12-month basis.
 - b) The permittee shall also record the hours of operation and the time operation begins and ends for each day.
5. Reporting
(20 NMAC 2.72, Sections 210.B and 210.E, and 212)
 - a) No Specific Conditions
6. Compliance Test
(NMAC 2.72, Section 210.C, 213)
 - a) Compliance testing for the generator (Unit No. TA-33-G-1) is not required at this time. However, compliance test requirements from previous permits (if any) are still in effect, unless the tests have been satisfactorily completed. Compliance tests may be re-imposed if Department inspections indicate possible noncompliance with permit conditions subject to such testing, or noncompliance during the initial compliance or subsequent compliance tests, or if the tests were technically unsatisfactory.
 - b) The tests shall be conducted in accordance with EPA Reference Methods 1 through 4, Method 7E for NO_x, Method 10 for CO, Method 5 for TSP, and contained in CFR Title 40, Part 60, Appendix A, and with the requirements of Subpart A, General Provisions, 60.8(f). For combined TSP and PM₁₀, testing shall be in accordance with 40 CFR 51, Appendix M, Method 201. Alternative test method(s) may be used if the Department approves the change. The results of the NO_x tests shall be expressed as nitrogen dioxide (NO₂) using a molecular weight of 46 lb/lb mole in all calculations (each ppm of NO/NO₂ is equivalent to 1.194×10^{-7} lb/SCF).

cc: Section Chief, Compliance and Enforcement Section, AQB, Santa Fe
Espanola NMED Field Office

Enclosure: Industry/Consultant Feedback Questionnaire with envelope

GENERAL CONDITIONS

1. Reporting

(20 NMAC 2.72, Sections 210.B and 210.E, and 212)

- a) The Permittee shall notify the Department in writing of or provide the Department with:
 - i) the anticipated date of initial startup of each new or modified source not less than thirty (30) days prior to the date;
 - ii) the equipment serial number and the actual date of initial startup of each new or modified source within fifteen (15) days after the startup date;
 - iii) the date when each new or modified emission source reaches the maximum production rate at which it will operate within fifteen (15) days after that date;
 - iv) any change of operators within fifteen (15) days of such change;
 - v) any necessary update or correction no more than sixty (60) days after the operator knows or should have known of the condition necessitating the update or correction of the permit.

2. Revisions and Modifications

(20 NMAC 2.72, Sections 200.A.2, 210.B.4, and 200.E)

Any future physical changes or changes in the method of operation may constitute a modification as defined by 20 NMAC 2.72, Construction Permits. Unless the source or activity is exempt under 20 NMAC 2.72, Section 202, no modification shall begin prior to issuance of a permit.

Changes in plans, specifications, and other representations stated in the application documents shall not be made if they cause a change in the method of control of emissions or in the character of emissions, or will increase the discharge of emissions. Any such proposed changes shall be submitted as a revision or modification.

Modifications or revisions to this permit shall be processed in accordance with 20 NMAC 2.72.

3. Notification to Subsequent Owners

(20 NMAC 2.72, Sections 107.M.1, 210.B.4, and 212.C)

The permit and conditions apply in the event of any change in control or ownership of the facility. No permit modification is required in such case. However, in the event of any such

change in control or ownership, the permittee shall notify the succeeding owner of the permit and conditions and shall notify the Department of the change in ownership within fifteen (15) days of that change.

Any new owner or operator shall notify the Department, within thirty (30) days of assuming ownership, of the new owner's or operator's name and address.

4. Right to Access Property and Review Records
(20 NMAC 2.72, Sections 210.B and 210.E, and 20 NMAC 2.73)

The Department shall be given the right to enter the facility at all reasonable times to verify the terms and conditions of this permit. The company, upon either a verbal or written request from an authorized representative of the Department, shall produce any records or information necessary to establish that the terms and conditions of this permit are being met.

5. Posting/Retention of the Permit
(20 NMAC 2.72, Section 210.B.4)

A copy of this permit shall be posted at the plant site or retained at the plant site at all times and shall be made available to Department personnel for inspection upon request.

6. Permit Cancellations
(20 NMAC 2.72, Section 211)

- a) the Department shall automatically cancel any permit for any source which ceases operation for five (5) years or more, or permanently. Reactivation of any source after the five (5) year period shall require a new permit.
- b) the Department may cancel a permit if the construction or modification is not commenced within two (2) years from the date of issuance or if, during the construction or modification, work is suspended for a total of one (1) year.

7. Unless modified by conditions of this permit, the applicant shall construct or modify and operate the facility in accordance with all representations of the application and supplemental submittals that the Department relied upon to determine compliance with applicable regulations and ambient air quality standards. If the Department relied on air quality modeling to issue this permit, any change in the parameters used for this modeling shall be submitted to the Department for review. Upon the Department's request, the applicant shall submit additional modeling for review by the Department. Results of that review may require a permit modification. (20 NMAC 2.72, Section 210.A)

8. Except as identified in the Specific Conditions, National Emission Standards for Hazardous

Air Pollutants (NESHAP) do not apply to this facility. However, during any asbestos demolition or renovation work CFR Title 40, Part 61, Subpart M (NESHAP) does apply. (20 NMAC 2.72, Section 210.A)

9. For engines or turbines equipped with catalytic converters and/or air fuel ratio controllers, or similar device which performs the same function of maintaining appropriate air and fuel ratios, records shall be made and maintained by the owner or operator for a period of at least two (2) years from the date of generation and a summary of quarterly reports shall be submitted to the Department annually, which:
 - a) For each air fuel ratio (AFR) controlling type device, demonstrate that the manufacturer's or supplier's recommended maintenance is performed, including replacement of oxygen sensor as necessary for oxygen-based controllers. Verification of proper operation of the controller shall be demonstrated at least quarterly by measuring and recording exhaust oxygen or NO_x concentrations with a properly calibrated portable analyzer as specified in the most current version of the SOP for "Use of Portable Analyzers in Performance Tests".
 - b) For any engine equipped with a catalytic converter, demonstrate the maintenance of the NO_x and CO reduction efficiency across the catalyst bed. This test shall be performed within ninety (90) days following initial startup and on a quarterly basis thereafter, unless an alternative testing schedule is specified by the department. Properly calibrated portable analyzers are acceptable for this demonstration. The test shall be conducted at ninety percent (90%) or greater of full load and shall include the exhaust volume flow rate (dscf) and the NO_x and CO emission rate (lb/hr). (20 NMAC 2.72, Section 210.B(4).
10. Flares used to comply with the NSPS Subpart GGG (KKK) requirements for VOC shall be tested in accordance with the requirements contained in 40 CFR 60, Subpart A, General Provisions, paragraph 60.8 (performance tests) and 60.18 (general control device requirements).
11. Except as provided in the Specific Conditions, records shall be maintained on-site for a minimum of two (2) years from the time of recording and shall be made available to Department personnel upon request. (20 NMAC 2.72, Sections 210.B.4, and 210.D)

12. If this permit requires any compliance testing, the owner or operator shall notify the Department at least thirty (30) days prior to the test date and allow a representative of the Department to be present at the test. The permittee shall submit a testing protocol to the Department at least thirty (30) days prior to the test date and shall observe the following testing procedures:
- a) The test protocol and compliance test report shall conform to the standard format specified by the Department. The most current version of the format may be obtained from the Enforcement and Compliance Section of the Air Quality Bureau.
 - b) The permittee shall also provide a one-quarter (1/4) inch stainless steel sampling line adjacent to the sampling ports and extending down to within four (4) feet above ground level to provide access for future audits. The line shall extend into the stack a distance of 1/4 the stack diameter, but not less than one inch from the stack wall. The sampling line shall be maintained clear of blockage at all times. This line shall be in place at the time of any required compliance tests. For any source for which compliance tests are not required or for previously existing sources this line shall be installed no later than one hundred and eighty (180) days from the date of this permit.
 - c) As an alternative, the owner or operator may provide a portable sampling line that is readily available which allows the Department to safely obtain representative stack gas samples at the time of compliance audits or site inspections.
 - d) See 2.72, Section 210.C for stack sampling platform requirements and access to sampling ports. (20 NMAC 2.72, Sections 210.B.4, and 210.D)

ADDITIONAL REQUIREMENTS

Applications for permit revisions and modifications shall be submitted to:

Program Manager, Permits Section
New Mexico Environment Department
Air Quality Bureau
2048 Galisteo
Santa Fe, New Mexico 87505

Compliance test protocols, regularly scheduled reports, a copy of the test results, and excess emission reports, shall be submitted to:

Program Manager, Compliance and Enforcement Section
New Mexico Environment Department
Air Quality Bureau
2048 Galisteo
Santa Fe, New Mexico 87505

REVOCATION

The Department may revoke this permit if the applicant or permittee has knowingly and willfully misrepresented a material fact in the application for the permit. Revocation will be made in writing, and an administrative appeal may be taken to the Secretary of the Department within thirty (30) days. Appeals will be handled in accordance with the Department's Rules Governing Appeals From Compliance Orders.

APPEAL PROCEDURES

20 NMAC 2.72, Section 207, provides that any person who participated in a permitting action before the Department and who is adversely affected by such permitting action, may file a petition for hearing before the Environmental Improvement Board. The petition shall be made in writing to the Environmental Improvement Board within thirty (30) days from the date notice is given of the Department's action and shall specify the portions of the permitting action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered and attach a copy of the permitting action for which review is sought. Unless a timely request for hearing is made, the decision of the Department shall be final. The petition shall be copied simultaneously to the Department upon receipt of the appeal notice. If the petitioner is not the applicant or permittee, the petitioner shall mail or hand-deliver a copy of the petition to the applicant or permittee. The Department shall certify the administrative record to the board. Petitions for a hearing shall be sent to:

Environmental Improvement Board
1190 St. Francis Drive, Runnels Bldg.
P.O. Box 26110
Santa Fe, New Mexico 87502